

## ABSTRACT

The invention includes improvements in the method and apparatus of handling and storing dry materials in storage vessels. Among the many improvements of the storage vessel is a fluidized bed that is fabricated with one or more fixed zones to fluidize the dry powder-like material that is stored directly on and above each zone. Each zone, or compartment of the fluidized bed, will be pressurized independent of the other zones with high-volume, low-pressure air in a specific sequence, via a simple air distribution device, to ensure that the contents in the vessel is accurately discharged on a first-in, first-out basis. In addition to the controlled discharge method using a zoned, fluidized bed, the silo may also be equipped with an oversized, filter-vent top to more efficiently filter the material and air as they are conveyed and filled in the silo.